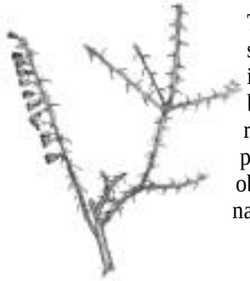
Stop 8

SHORTSPINE HORSEBRUSH *(Tetradymia spinosa),* togoggwa tamma, *"rattlesnake's teeth"*



This plant takes its name from the sharp, slightly incurved spines on its stems. Note that the official botanical name, *spin*osa, also refers to these spines. Often Native people and scientists make the same observations about nature and name things in the similar ways.

Stop 9

OVERLOOK

From this point you can see the Humboldt Sink, the ending point for the Humboldt River. This was once a vast marsh and lake supporting cattails, bulrushes, reeds and other plants, most of which the Indian people used. Cattail *(Typha latifolia),* toi, has an edible seed, pollen that can be baked like flour into a bread in the ashes, and an edible base that tastes like celery. Its leaves were made into mats for houses and, when twisted, were used for string and cordage. Bulrush *(Scirpus acutus),* saibu, popularly called "tule", also has an edible base and seed. Its stalks were made into boats, decoys for ducks and geese, sandals, mats for sleeping and sitting and bags for carrying and storing valuables. To the west is the Humboldt Dike, a low earthen and gravel bar that separates the Humboldt Sink from the Carson Sink. This feature was once a great bar in Lake Lahontan, made by the water washing the earth and gravel in this particular place. The Paiute people call this "Coyote's Dam", and tell a story about it:

Coyote was chasing Trout. He chased him all the way down the Humboldt River trying to kiss him. Trout was always just ahead of him. Coyote ran ahead and built a dam across the river to see if he could stop Trout so he could kiss him. Trout got away, but you can still see Coyote Dam and the claw marks on the mountain where Coyote scraped the earth away to build the dam.–Helen Williams 2000.

Coyote is an important animal and person to the Paiute people, someone who sometimes does good things but who more often is up to mischief. He tricks his way through life rather than doing things honestly. People say that there is a little bit of Coyote in all of us, so they tell lots of stories about him to remind each other how not to behave. The famous cartoon series "Coyote and the Roadrunner," where Coyote is always trying to use trickery to catch Roadrunner is taken from widespread Native American traditions about this character. Following is another Coyote story about how the pinyon and juniper were introduced to this area:

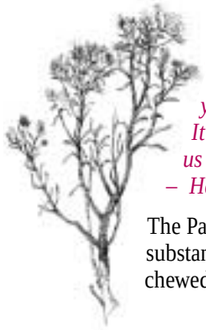
They say that Coyote ruined it –the pine nut trees. He is like that, you know, always spoiling things. Back in the time when animals were people, Coyote and his older wiser brother Wolf went north to steal pine nuts and bring them to this country. They had lots of adventures along the way. When they got back, Wolf put pine nuts in his mouth and sprayed them on the hills to make them grow. But that Coyote –the pine nuts tasted so good –he swallowed most of them, so where he sprayed, mostly junipers grow. – Helen Williams, 2000.

To the east is the West Humboldt Range. The dark green band in it's central section is a scrub forest including Utah juniper *(Juniperus osteoperma)* and pinyon pine *(Pinus monophylla).* These are important trees for the Indian people of this region – especially the pinyon pine as it produces a large, nutritious and very tasty nut, the pine nut *(tuba).* Pinyon pitch was used as glue and for sealing baskets for carrying water and preparing food. Since very few pinyon grow in the West Humboldt Range, Paiute families made a three day journey to the Stillwater Range to the east to collect pine nuts.

Stop 10

RUBBER RABBITBRUSH *(Chrysothamnus nauseosus),* seegoope

The yellow flowers of rabbitbrush are the true signal for fall in the Great Basin. Nighttime temperatures begin to drop in late August and early September, and daylight hours shorten as winter approaches. This is the traditional time for people and animals to prepare for winter. Vegetable foods were stored, meat was dried and hides were repaired for winter clothing.



Seegoope is a signal. When it turns yellow in the fall, it tells us it is time to do deer hides. It is also time to hunt younger deer –the ones from last year. It is also time to go for pine nuts. It tells us all that. This happens in the fall.
– Helen Williams, 2000

The Paiutes collected small balls of rubbery substance from the roots of rabbitbrush and chewed it as gum.

Stop 11 LOVELOCK CAVE

BAT *(various species),* pigahana'a

Welcome to Lovelock Cave. Bats lived in Lovelock Cave during earlier times when the Humboldt Sink held more water than it does now. The bats ate insects on the wing during their early evening flights away from the shelter of the cave. Over time, their droppings left thick layers in the cave, often covering human artifacts.

The Paiute people call bats *pigahana'a,* and say they are like birds, because they can fly, and like mice because of their fur, teeth and ears. Bats play a positive role in the environment because they eat lots of insects. Today, bats are rarely seen in the cave because the area is too dry to support insect foods.

After you visit the cave, continue along the trail to the parking area. We hope you've enjoyed your hike, and the opportunity to become more acquainted with some of the plants and animals in the area, their uses, and stories about them. Remember to always respect these and other living things as you go your way and think of their unique places in the world. The Paiute people think of them often, speak to them when they see them, and give them thanks for making this world a better place.

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Lovelock Cave Nature Trail

Sarah Winnemucca, Paiute author and spokesperson, was born in the Humboldt Sink in 1844. She is related to many members of the Lovelock Paiute Tribe. Sarah Winnemucca walked these lands, used the plants discussed and helped pass down some of the stories related here.

Photo Courtesy of Nevada Historical Society

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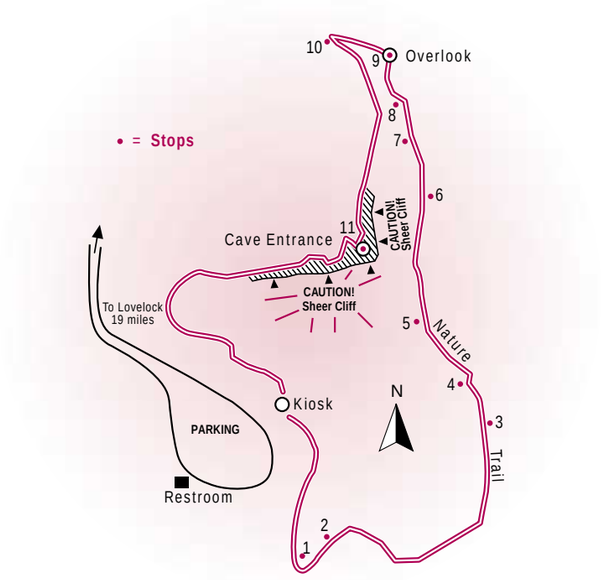


WELCOME to the Lovelock Cave Nature Trail. The entire trail is about one-half mile long. Along the trail you'll find numbered markers that correspond with entries in your brochure. Each entry describes one or more of the plants and animals found within this part of the Great Basin. These are identified by their common, Latin and Paiute names.

Depending on the season, some plants will be more or less distinguishable. Each plant has its own cycle of germination, growth and dormancy. Return visits to the nature trail will reward you with glimpses into the many expressions of nature's ever-changing cycles.

Northern Paiute people from the Lovelock Tribe have kindly supplied information for several of these stops in order to make your visit more enjoyable. They are deeply respectful of their native lands and sacred places, and they hope that through this sharing of information, you will respect and understand the subtle beauty of this area. This is a many storied land. Come along and enjoy the walk and the stories.

Sections of the trail are steep and rocky. It's advisable to wear sturdy shoes or hiking boots and to carry drinking water. On the hill above the cave there are sheer cliffs, so please watch over children. Also watch out for rattlesnakes. Remember, you may observe, sketch or photograph anything you encounter, but please leave everything as you found it. Have a great time!

Stop 1

SHADSCALE *(Atriplex confertifolia)*, kangoobu

Shadscale is a very common plant in this area, and throughout the low-lying areas once covered by ancient Lake Lahontan. It is quite salt tolerant, and very well adapted to dryness. Its tiny leaves contribute to its ability to not lose water. Plants related to it (in the genus *Atriplex*) are also very common in other desert areas of the world suggesting that they may have taken similar evolutionary paths.

Indian people used shadscale primarily for firewood, especially for starting fires.

Stop 2

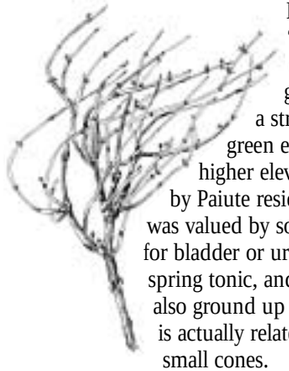
GREASEWOOD *(Sarcobatus vermiculatus)*, tonobe

Long ago, in the time when animals and plants were people, Greasewood and Sagebrush had an argument as to who was best. Greasewood said, "I'm the best one because people can make many things out of me – arrow shafts, digging sticks, needles." Sagebrush (sawabe) said, "I'm the best because people can make string and rope and clothes out of my bark." Greasewood said. "I'm the best because the Greasewood worm lives under my roots and is good to eat." Sagebrush said, "I'm the best because my leaves make a tea for medicine." Greasewood said, "I'm the best because I make a fire that burns hot and long." And then Sagebrush said, "But I'm really the best because I am the only one that burns when I'm wet." Sagebrush finally won the argument this way.
– Helen Williams, 2000

As this Paiute story says, the world would not be complete without both greasewood and sagebrush because between them they provide food and medicine, firewood for cooking and warmth, and wood and fiber for tools and clothing. Big sagebrush *(Artemisia tridentata)* grows at higher elevations. "Big" greasewood *(S. vermiculatus)* and Bailey's greasewood *(S. baileyi)* are common to the Lovelock Cave area. Both varieties of greasewood are salt tolerant, making them especially adapted to this area's salt-rich environment.

Stop 3

INDIAN TEA *(Ephedra nevadensis)*, Isse tsoodoope, *"gray ephedra"*



Indian Tea, also known as "Mormon Tea," is a type of ephedra. *E. nevadensis* has gray-green stems and produces a strong tea when boiled. Its cousin, green ephedra *(E. viridis)* grows at higher elevations and its tea is preferred by Paiute residents of Lovelock. Green ephedra was valued by some as a tonic, and as a treatment for bladder or urinary tract infections, general spring tonic, and also as a diuretic. The plant was also ground up and used as a poultice. Ephedra is actually related to pine. Note the spines and small cones.

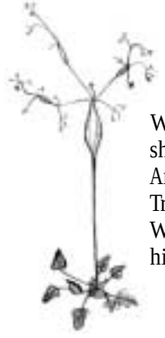
Stop 4

BUD SAGEBRUSH *(Artemisia spinescens)*, kubatukannokwa, *"squirrel's food"*

Bud sagebrush adapted to the high desert environment by developing a deep taproot for collecting groundwater and horizontal roots to catch surface moisture. *A. spinescens* has a slight antibacterial effect recognized by the Paiute people. The plant's dried flowers and seed (bud) pods were ground into a paste, and applied to swollen areas. A tea brewed from the plant's leaves was consumed for tuberculosis, and taken cold, the tea was used for bladder complaints.

Stop 5

DESERT TRUMPET *(Eriogonum inflatum)*, hoogwapa ossa *"wind jug"*



The Desert Trumpet was known as the "wind jug" by Northern Paiutes. Its inflated stem reminded them of their water bottle. When the wind blew through it, its acoustical shape would produce a noise. This led Euro-Americans to call the plant the Desert Trumpet, but to the Paiutes it was the Wind's water jug. Look for these on the hillside above you and along the trail.

Stop 6

LICHENS, *Tubottsa yokosenna*, "lizard's juices"

That lizard makes that, you know. Tubottsa, we call him. He gets on the rock and leaves those there. But they are good medicine. –Gilbert Natches, 1940.

The yellow, red, and green crusts you can see on the rocks are lichens, made up of fungi and algae. They absorb water from the sparse rainfall to grow, but then can be dormant during drought periods. Lichen take a very long time to grow, so please do not disturb them in their slumbers.

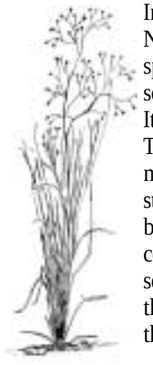
The Paiute people say that Lizard leaves them on the rock. You often see lizards sitting on the rocks near lichen. When ground to powder, lichen can be used to treat rashes, insect bites, minor skin infections, and similar conditions.

If you're lucky, you may see a horned lizard. Popularly called a "horny toad," these and other lizards sun themselves on rocks during cold mornings and seek shelter in the shade of rocks and bushes in the midday heat. Paiute people are very respectful of them and pray to them for help when they see them.

Horn Toad is a doctor, you know. He is a good doctor, too. When some part of you hurts, get a horn toad and put him on the part that hurts. If he swells up, that means he is taking the poison out of you. When he is finished, put some beads around his neck and say "thank you," and let him go. He is a good doctor. He will also find you water. Keep him with you and you won't get thirsty and you will find water. – Gilbert Natches, 1940

Stop 7

INDIAN RICE GRASS *(Oryzopsis hymenoides)*, wai



Indian rice grass was an important staple of the Northern Paiute. *Oryzopsis hymenoides* is sparse in this area, but it grows in vast fields in some sandy areas of Northern Paiute country. Its black seeds ripen in late June or early July. Traditional Paiute women arose early in the morning "when the first bird sings", to cut the stems and place them in large conical burden baskets. The women carried the baskets to a central processing ground where the stems and seeds were ignited. The chaff was removed and the seeds were ground into flour by crushing them with a hand stone on a flat grinding rock.